Federal Aviation Administration, DOT

§ 27.993 Fuel system lines and fittings.
(a) Each fuel line must be installed and supported to prevent excessive vibration and to withstand loads due to fuel pressure and accelerated flight conditions.
(b) Each fuel line connected to components of the rotorcraft between which relative motion could exist must have provisions for flexibility.
(c) Flexible hose must be approved.
(d) Each flexible connection in fuel lines that may be under pressure or subjected to axial loading must use flexible hose assemblies.
(e) No flexible hose that might be adversely affected by high temperatures may be used where excessive temperatures will exist during operation or after engine shutdown.


§ 27.995 Fuel valves.
(a) There must be a positive, quick-acting valve to shut off fuel to each engine individually.
(b) The control for this valve must be within easy reach of appropriate crewmembers.
(c) Where there is more than one source of fuel supply there must be means for independent feeding from each source.
(d) No shutoff valve may be on the engine side of any firewall.


§ 27.997 Fuel strainer or filter.
There must be a fuel strainer or filter between the fuel tank outlet and the inlet of the first fuel system component which is susceptible to fuel contamination, including but not limited to the fuel metering device or an engine positive displacement pump, whichever is nearer the fuel tank outlet. This fuel strainer or filter must—
(a) Be accessible for draining and cleaning and must incorporate a screen or element which is easily removable;
(b) Have a sediment trap and drain except that it need not have a drain if the strainer or filter is easily removable for drain purposes;
(c) Be mounted so that its weight is not supported by the connecting lines or by the inlet or outlet connections of

§ 27.1011 Engines: General.
(a) Each engine must have an independent oil system that can supply it with an appropriate quantity of oil at a temperature not above that safe for continuous operation.
(b) The usable oil capacity of each system may not be less than the product of the endurance of the rotorcraft under critical operating conditions and the maximum oil consumption of the engine under the same conditions, plus a suitable margin to ensure adequate circulation and cooling. Instead of a rational analysis of endurance and consumption, a usable oil capacity of one